

Analysing long-term landscape changes in a Bornean forest reserve using aerial photographs.

ABSTRACT

Aerial photographs have been widely used to monitor large-scale spatial changes taking place over long periods. In this study, the types and trajectories of landscape changes in Sabal Forest Reserve in the Malaysian state of Sarawak, Borneo over a period of 26 years (1972-1998) were investigated using 1:25,000 scale aerial photographs and ground surveys. The aerial photographs showed typical land use features such as forest clearing, fallows, roads, power line easements and houses, all of which could be easily identified and mapped by stereoviewing. Further analysis revealed that logging activities, which started in the 1970s continued to increase through to the 1990s. In comparison, shifting cultivation began earlier and was seen to be widespread but was banned in Sabal by 1984, thus reflecting the conflict of interest between two major land users: shifting cultivators and foresters. Reforestation projects carried out after the ban appeared successful in increasing tree cover in former shifting cultivation areas. In conclusion this study has provided an interesting case study about how people in a remote area in Sarawak shaped their forested landscape.

Keyword: Forest reserves; Sarawak; Logging; Shifting cultivation.